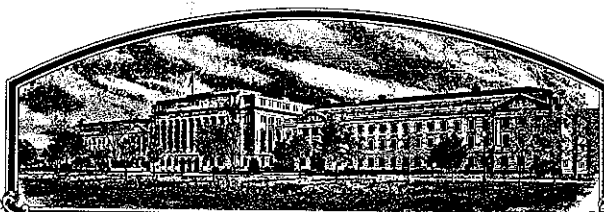


No.



8300068

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Rohm and Haas Seeds, Inc.**

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)



WHEAT '715'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 31st day of January in the year of our Lord one thousand nine hundred and eighty-six.

Attest:

*Kenneth A. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*[Signature]*  
Acting Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED  
OMB NO. 40-R3822

**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY <b>75S 2631</b>		1b. VARIETY NAME <b>715</b>		FOR OFFICIAL USE ONLY PV NUMBER <b>8300068</b>	
2. KIND NAME <b>Wheat</b>		3. GENUS AND SPECIES NAME <b>Triticum aestivum L.</b>		FILING DATE <b>2/24/83</b>	TIME <b>10:00</b> A.M. <input checked="" type="checkbox"/> P.M.
4. FAMILY NAME (BOTANICAL) <b>Gramineae</b>		5. DATE OF DETERMINATION <b>August 1978</b>		FEE RECEIVED \$ <b>1,000</b>	DATE <b>2/24/83</b>
6. NAME OF APPLICANT(S) <b>ROHM AND HAAS SEEDS INC. Northrup King Co.</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>INDEPENDENCE MALL WEST 1500 Jackson St. N.E. Minneapolis, MN 55413 PHILADELPHIA, PA 19105</b>		8. TELEPHONE AREA CODE AND NUMBER <b>215-641-7838 4/20/85 612-781-5305</b>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <b>Delaware</b>		11. DATE OF INCORPORATION <b>1896</b>	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: <b>Robert W. Romig JR. JAMES E. STROIKE Northrup King Co. 727 NORRISTOWN ROAD, BUILDING 70 1500 Jackson St. N.E., Minneapolis, MN 55413 SPRING HOUSE, PA 19477</b>					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) ☐ YES ☒ NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☐ NO

14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates.)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

FEBRUARY 10, 1983  
(DATE)

Robert W. Romig  
(SIGNATURE OF APPLICANT)

Robert W. Romig

(DATE)

(SIGNATURE OF APPLICANT)

## EXHIBIT A

Origin and Breeding History of the Variety

Variety 715 is the result of hybridization and individual plant selection from the cross Era/Justin. Our pedigree is N3267-5A-3M-2A-OF.

We made the cross in the greenhouse at Eden Prairie, Minnesota in the spring of 1972. The  $F_1$  was grown in the field at Eden Prairie during the summer of 1972. This was followed by individual plant selections in alternating generations between Yuma, Arizona and Moorhead, Minnesota during the  $F_2$  to  $F_4$ . In 1974 the  $F_5$  plant progeny row at Moorhead was harvested in bulk to provide seed for preliminary trials.

Seed from the 1975 preliminary yield trial ( $F_6$ ) was used to plant replicated yield trials ( $F_7$ ) in 1976. Twenty five heads were selected from the 1976 yield trial at Moorhead to begin our head-row program.  $F_8$  head-rows were planted at Yuma in 1976-77. Pure-line increases ( $F_9$ ) of these head-rows were made in southern California in 1977. In 1978 one  $F_8$  head-row derived line, 78ASH 30005 ( $F_{10}$ ) was identified to represent the variety. This line was again increased in Arizona in 1979. Variety 715 is then derived from a  $F_8$  head-row.

The variety is uniform and stable. There are no unusual or characteristic variations that have been observed to date.

Breeders seed produced in Arizona in 1979 was harvested and planted the following spring of 1980 in Minnesota. Foundation fields in 1980 were inspected by the Minnesota Crop Improvement Association.

## EXHIBIT B

Novelty Statement

Variety 715 is most similar to "Era", but differs from Era in beak length. Beaks for 715 are 8 - 18 mm in length whereas beaks for Era under similar growing conditions are 4 - 8 mm in length.

Variety 715 can also be differentiated from Era by seedling reactions to physiologic races of Puccinia graminis f. sp tritici. The following infection types were observed at the Cereal Rust Laboratory in 1979:

<u>Race</u>	<u>Infection type</u>	
	<u>715</u>	<u>Era</u>
TNMH	3,2	0
TNMK	2	0;
RTQQ	3,2	0;

The infection type for 715 and Era differs for races TNMH, TNMK, and RTQQ.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY  
WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Northrup King Co.

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

1500 Jackson St. N.E.  
Minneapolis MN 55413

FOR OFFICIAL USE ONLY

PVPO NUMBER 8300068

VARIETY NAME OR TEMPORARY DESIGNATION

715

Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g.  or ) when number is either 99 or less or 9 or less.

## 1. KIND:

1 = COMMON    2 = DURUM    3 = EMMER    4 = SPELT    5 = POLISH    6 = POULARD    7 = CLUB

## 2. TYPE:

1 = SPRING    2 = WINTER    3 = OTHER (Specify) \_\_\_\_\_  1 = SOFT    3 = OTHER (Specify) \_\_\_\_\_  
2 = HARD

1 = WHITE    2 = RED    3 = OTHER (Specify) \_\_\_\_\_

## 3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

FIRST FLOWERING

LAST FLOWERING

## 4. MATURITY (50% Flowering):

NO. OF DAYS EARLIER THAN .....  1 = ARTHUR    2 = SCOUT    3 = CHRIS

NO. OF DAYS LATER THAN .....  4 = LEMHI    5 = NUGAINES    6 = LEEDS  
7 = Era    8 = Produx

## 5. PLANT HEIGHT (From soil level to top of head):

CM. HIGH

CM. TALLER THAN .....  7 = Era    8 = Produx

CM. SHORTER THAN .....  1 = ARTHUR    2 = SCOUT    3 = CHRIS  
4 = LEMHI    5 = NUGAINES    6 = LEEDS

## 6. PLANT COLOR AT BOOTING (See reverse):

1 = YELLOW GREEN    2 = GREEN    3 = BLUE GREEN

## 7. ANTHR COLOR:

1 = YELLOW    2 = PURPLE

## 8. STEM:

Anthocyanin: 1 = ABSENT    2 = PRESENT

Hairiness of last internode of rachis: 1 = ABSENT    2 = PRESENT

NO. OF NODES (Originating from node above ground)

Waxy bloom: 1 = ABSENT    2 = PRESENT

Internodes: 1 = HOLLOW    2 = SOLID

CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

## 9. AURICLES:

Anthocyanin: 1 = ABSENT    2 = PRESENT

Hairiness: 1 = ABSENT    2 = PRESENT

## 10. LEAF:

Flag leaf at booting stage: 1 = ERECT    2 = RECURVED  
3 = OTHER (Specify): \_\_\_\_\_

Flag leaf: 1 = NOT TWISTED    2 = TWISTED

Hairs of first leaf sheath: 1 = ABSENT    2 = PRESENT

Waxy bloom of flag leaf sheath: 1 = ABSENT    2 = PRESENT

MM. LEAF WIDTH (First leaf below flag leaf)

CM. LEAF LENGTH (First leaf below flag leaf):

## 11. HEAD:

Density: 1 = LAX 2 = DENSE  Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE  
4 = OTHER (Specify) \_\_\_\_\_

Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED  
5 = BROWN 6 = BLACK 7 = OTHER (Specify): \_\_\_\_\_

CM. LENGTH   MM. WIDTH

## 12. GLUMES AT MATURITY:

Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.)  Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE  Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

## 13. COLEOPTILE COLOR:

1 = WHITE 2 = RED 3 = PURPLE

## 14. SEEDLING ANTHOCYANIN:

1 = ABSENT 2 = PRESENT

## 15. JUVENILE PLANT GROWTH HABIT:

1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

## 16. SEED:

Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL  Cheek: 1 = ROUNDED 2 = ANGULAR

Brush: 1 = SHORT 2 = MEDIUM 3 = LONG  Brush: 1 = NOT COLLARED 2 = COLLARED

Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) \_\_\_\_\_

MM. LENGTH   MM. WIDTH   GM. PER 1000 SEEDS

## 17. SEED CREASE:

Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'  Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

## 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

STEM RUST (Races) RHRS OSHS  LEAF RUST (Races) KGB, CBC  STRIPE RUST (Races) \_\_\_\_\_  LOOSE SMUT

POWDERY MILDEW  BUNT  OTHER (Specify) \_\_\_\_\_

## 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

SAWFLY  APHID (Bydv.)  GREEN BUG  CEREAL LEAF BEETLE

OTHER (Specify) \_\_\_\_\_ HESSIAN FLY RACES:  GP  A  B  C  D  E  F  G

## 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Era	Seed size	Era
Leaf size	Solar	Seed shape	Era
Leaf color	Prodax	Coleoptile elongation	Era
Leaf carriage	Newana	Seedling pigmentation	Era

## INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (a) L.W. Briggles and L. P. Reitz, 1963, *Classification of Triticum Species and Wheat Varieties Grown in the United States*, Technical Bulletin 1278, United States Department of Agriculture.
- (b) W.E. Walls, 1965, *A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity*, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

## EXHIBIT D

Additional Description of the Variety

Variety 715 is a cultivar of Triticum aestivum L. with spring growth habit. The kernels are hard, red, and ovate in shape. Cheeks are normally rounded. The crease is midwide and mid-deep. Germs are mid-sized and the brush is small and short. Spikes are awned, fusiform to oblong and lax to middense. Glumes are white, glabrous, midlong, and midwide. Glume shoulders are wanting in shape and midwide. Beaks are midwide, acuminate, and 8-18 mm long.

This variety is a semidwarf with height similar to Era. Relative maturity is medium late like Era. Heading dates for 715 on the average are similar to Era and about three days later than Prodx in Minnesota. 715 is resistant to some races of stem rust (Puccinia graminis f. sp. tritici) and leaf rust (P. recondita).

<u>Stem Rust Race</u>	<u>Reaction</u>
TNMH	3,2
TNMK	2
RHRS	1C
QSHS	1C
RTQQ	3,2
RKQS	2,C

<u>Leaf Rust Race</u>	<u>Reaction</u>
KGB	0;
CBC	0;

The coleoptile color is white and seedling anthocyanin is absent. Juvenile plant growth is erect. Plant color at booting is dark green. Waxy bloom is present on the flag leaf sheath and stem. Auricles have no anthocyanin and hairs are absent. The stem is hollow and has no anthocyanin. Usually three and often four nodes originate from the node above ground. The flag leaf is primarily erect and twisted at boot and then becomes recurved in late boot. Anther color is yellow.

Overall milling and baking is acceptable and comparable to Era.

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## EXHIBIT D

Table 1. Test weight of Variety 715 in comparison to checks grown in replicated small plot trials at Moorhead, Minnesota; East Grand Forks, Minnesota and Portage, Manitoba in 1977 - 1981.

Year and Location	715 kg/hl	Era kg/hl	Prodax kg/hl
<u>1977</u>			
<u>Moorhead</u> - Exp. 86	71.4	70.3	71.8
Exp. 82	70.5	70.5	72.6
<u>Portage</u> - Exp. 82	78.9	80.1	78.6
<u>Langdon ND</u> - Exp. 82	76.5	78.6	77.0
<u>Gilbey ND</u> - Exp. 82	79.9	80.4	76.1
<u>(1977 Average)</u>	75.4	76.0	75.2
<u>1978</u>			
<u>E. Grand Forks</u> -Exp. 80	79.6	80.2	77.9
<u>1979</u>			
<u>Moorhead</u> Exp. 68	79.6	81.0	76.6
Exp. 75	79.9	79.8	74.4
<u>E. Grand Forks</u> -Exp. 68	78.1	78.9	74.4
Exp. 75	69.3	75.9	70.7
<u>Portage</u> - Exp. 68	80.2	81.0	79.7
<u>(1979 Average)</u>	77.4	79.3	75.2
<u>1980</u>			
<u>Moorhead</u> - Exp. 59	79.2	77.2	75.7
Exp. 62	79.2	78.8	76.4
<u>(1980 Average)</u>	79.2	78.0	76.1
<u>1981</u>			
<u>Moorhead</u> - Exp. 83	74.8	79.6	71.8
<u>5 Year Average</u>	77.3	78.6	75.2

## EXHIBIT D

Table 2. Plant height of Variety 715 in comparison to checks grown in replicated small plots at Moorhead, Minnesota; East Grand Forks, Minnesota and Portage, Manitoba in 1977 - 1981.

Year and Location	715 cm	Era cm	Prodax cm
<u>1977</u>			
<u>Moorhead</u> - Exp. 86	82	78	80
Exp. 82	74	79	78
<u>Portage</u> - Exp. 82	71	76	75
<u>Langdon ND</u> - Exp. 82	71	75	68
<u>Gilbey ND</u> - Exp. 82	<u>64</u>	<u>67</u>	<u>50</u>
<u>(1977 Average)</u>	72	75	70
<u>1978</u>			
<u>Moorhead</u> - Exp. 80	77	76	75
<u>E. Grand Forks</u> - Exp. 80	<u>71</u>	<u>73</u>	<u>67</u>
<u>(1978 Average)</u>	74	75	71
<u>1979</u>			
<u>Moorhead</u> - Exp. 68	74	67	75
Exp. 75	84	74	74
<u>E. Grand Forks</u> - Exp. 68	83	80	82
Exp. 75	80	80	78
<u>Portage</u> - Exp. 68	<u>71</u>	<u>74</u>	<u>78</u>
<u>(1979 Average)</u>	78	75	77
<u>1980</u>			
<u>Moorhead</u> - Exp. 59	78	74	74
Exp. 62	81	75	76
<u>1981</u>			
<u>Moorhead</u> - Exp. 83	89	93	83
<u>5 Year Average</u>	78.6	78.6	75.2

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## EXHIBIT D

Table 3. Date of heading of Variety 715 in comparison to checks grown in replicated small plot trials at Moorhead, Minnesota; East Grand Forks, Minnesota and Portage, Manitoba in 1977-1981.

Year and Location	Days from Jan. 1		
	715	Era	Prodax
<u>1977</u>			
<u>Moorhead</u> - Exp. 86	169	169	166
Exp. 82	168	168	167
<u>Gilbey ND</u> - Exp. 82	<u>167</u>	<u>166</u>	<u>164</u>
<u>(1977 Average)</u>	168	168	166
<u>1978</u>			
<u>Moorhead</u> - Exp. 80	181	182	182
<u>E. Grand Forks</u> - Exp. 80	<u>175</u>	<u>173</u>	<u>172</u>
<u>(1978 Average)</u>	178	178	177
<u>1979</u>			
<u>Moorhead</u> - Exp. 68	194	194	190
Exp. 75	192	192	190
<u>E. Grand Forks</u> - Exp. 68	188	190	186
Exp. 75	187	190	186
<u>Portage</u> - Exp. 68	<u>203</u>	<u>203</u>	<u>203</u>
<u>(1979 Average)</u>	193	194	191
<u>1980</u>			
<u>Moorhead</u> - Exp. 59	174	175	172
Exp. 62	<u>175</u>	<u>176</u>	<u>172</u>
<u>(1980 Average)</u>	175	176	172
<u>1981</u>			
<u>Moorhead</u> - Exp. 83	180	179	176
<u>5 Year Average</u>			
	178.8	179.0	176.4

## EXHIBIT D

Table 4. Agronomic characteristics of Variety 715 in comparison to checks summarized from Northrup King trials in 1977-1981.

Variety	Tst. Wt.	Hgt. cm	Hdg. dage	Ldg. <sup>1/</sup>	Shat- <sup>1/</sup> tering	Rel. <sup>2/</sup> Mat.	Leaf Rust Range	Stem <sup>1/</sup> Rust Field	Sep- <sup>1/</sup> toria	Leaf <sup>1/</sup> Spot
715	77.3	79	179	3	1	4	TR-40S	0	6	2
Era	78.6	79	179	3	2	4	5MS-5S	0	5	2
Prodax	75.2	75	176	4	2	4	20S-50S	0	6	2

1/ 0-9 Scale where 0 is best and 9 is worse.

2/ 1-9 Scale where 1 is earliest and 9 is latest

8300068

## EXHIBIT D

Table 5. Quality characteristics of Variety 715 and checks at East Grand Forks, Minnesota in 1978 and Moorhead, Minnesota in 1979.

Characteristics	1978		1979	
	715	Prodax	715	Butte
Wheat Protein	14.45	13.70	14.15	13.90
Test Weight	63.9	64.3	63.3	64.0
Milling Ext. %	72.9 G	70.8 G	73.9 G	72.4 G
Farinograph				
Absorption	63.0	62.4	62.4	60.0
Peak	10.00	4.75	5.00	5.50
Stability	39.00	5.50	6.50	8.50
MTI	10	55	50	40
Valorimeter	82	53	57	59
Flour				
Ash	.405	.455	.479	.391
Protein	13.45	12.70	13.15	12.90
Bake				
Absorption	65.5 G+	65.0 G	65.0 G	64.0 G
Mix	6.00 G-	2.75 G-	3.50 G	5.00 VG
Dough	5 G-	5 G-	5 G-	6 G
Loaf Vol. cc	990 VG-	930 G	1000 VG	975 VG-
Score	29 G-	26 G-	28 G-	31 G
Overall Score	61 G-	53 G-	55 G-	61 G-

8300068

## EXHIBIT D

Table 6. Quality characteristics of Variety 715 and checks at Moorhead, Minnesota in 1980 and 1981.

Characteristics	1980		1981	
	715	Butte	715	Butte
Wheat Protein	14.45	15.10	14.15	14.70
Test Weight	62.3	62.2	60.2	61.2
Milling Ext. %	72.1 G	71.3 G	69.3 G-	70.5 G
Farinograph				
Absorption	62.0	65.0	62.0	60.7
Peak	6.00	11.00	5.50	9.75
Stability	11.00	22.00	9.50	23.00
MTI	30	10	45	15
Valorimeter	63	83	60	78
Flour				
Ash	.453	.386	.474	.450
Protein	13.45	14.10	13.00	13.60
Bake				
Absorption	64.5 G	68.0 VG-	64.5 G	63.5 G-
Mix	4.00 G	5.50 G-	4.00 G	6.00 G-
Dough	6 G	5 G-	6 G	6 G
Loaf Vol. cc	950 G	1000 VG-	1000 VG	1000 EX
Score	28 G-	26 G-	32 G	32 G
Overall Score	57 G-	57 G-	60 G-	63 G-

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ASSIGNMENT OF UNITED STATES PLANT  
VARIETY PROTECTION CERTIFICATES

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Northrup King Co., a Delaware corporation having an office at 1500 Jackson Street N.E., Minneapolis, Minnesota 55413, does hereby sell, assign, transfer and convey to Rohm and Haas Seeds Inc., a Delaware corporation, Independence Mall West, Philadelphia, Pennsylvania 19105, the entire right, title and interest in and to the following United States Plant Variety Protection Certificates together with all the rights described and claimed therein:

<u>Certificate Number</u>	<u>Variety</u>	<u>Date Issued</u>
7500005	Prodax	June 30, 1975
7800010	Solar	March 29, 1979
8200002	Walera	June 17, 1982
8100013	711	December 10, 1981
	715	Applied for in 1983
8200033	817	June 17, 1982
8200094	830	September 23, 1982
8200006	835	March 11, 1982
7200038	McNair 701	February 26, 1974
7700084	McNair 1003	August 10, 1978
7500006	McNair 1813	May 1, 1975
7200037	McNair 4823	April 8, 1975
	RHS 8232	Applied for in 1984

the same to be held and enjoyed by said Rohm and Haas Seeds Inc. for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives, for the full term or terms for which said Certificates are or may be granted or reissued, as fully and entirely as the same would have been held and

enjoyed by said Northrup King Co. if this assignment and sale had not been made; together with all claims for damages by reason of past infringement of said Certificates, including the right to sue for and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, Northrup King Co. has caused this assignment to be executed by its duly authorized officer, effective the 20<sup>TH</sup> day of JULY, 1984.

NORTHROP KING CO.

By: George L. Jones

(CORPORATE SEAL)

STATE OF MINNESOTA     )  
                                      ) ss.  
COUNTY OF HENNEPIN    )

On this 20<sup>TH</sup> day of JULY, 1984, before me, a Notary Public in and for the county and state aforesaid, personally appeared GEORGE L. JONES, to me personally known, who, being by me duly sworn, did say that he is the PRESIDENT of Northrup King Co.; that the seal affixed to the foregoing assignment is the corporate seal of Northrup King Co. and that the assignment was executed in behalf of Northrup King Co. by authority of its board of directors; and did acknowledge the assignment to be the free act and deed of Northrup King Co.

Witness my hand and seal the day and year set forth above.

Edward C. Resler  
Notary Public

